

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SUNSTONE INFORMATION DEFENSE, INC.,

Plaintiff,

v.

F5, INC.,

Defendant.

Case No. 21-cv-09529-YGR

CLAIM CONSTRUCTION ORDER

Re: Dkt. No. 120

On January 22, 2021, plaintiff Sunstone Information Defense, Inc. (“Sunstone”) brought this patent infringement action against F5 and Capital One Financial Corporation (“Capital One”). (Dkt. No. 1.) On April 4, 2022, the case against Capital One was stayed. (Dkt. No. 91.)

Sunstone accuses defendant F5 of infringing several cybersecurity-related software patents, including U.S. Patent Nos. 9,122,870 (“’870 Patent” or “’870”); 10,230,759¹; and 10,958,682 (“’682 Patent” or “’682”). These patents claim technology related to preventing malicious attacks or exposure of information by autonomous programs, i.e., “bots.” The Accused Products are “various computer security products and services[.]” (First Amended Compl. (“FAC”) ¶ 6, Dkt. No. 89.)

I. BACKGROUND

A. The ’870

The title of the ’870 Patent is “Methods and Apparatus for Validating Communications in an Open Architecture System.” The ’870 Patent discloses ways to “validate communications in an open architecture system and,[]” predict responses “to identify malicious applications attempting to interfere with communications between servers and the client devices.” (’870 Patent at 3:56-61.)

¹ Claims arising from the ’759 patent have since been dismissed. (Dkt. No. 118.)

B. The '682

The title of the '682 Patent is "Methods and Apparatus for Varying Soft Information Related to the Display of Hard Information." The '682 Patent discloses ways to "validate communications in an open architecture system and,[]" predict responses "to identify malicious applications attempting to interfere with communications between servers and the client devices." ('682 Patent at 3:66-4:4.)

II. LEGAL STANDARD

Claim construction is a question of law for the court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996). "The purpose of claim construction is to determine the meaning and scope of the patent claims asserted to be infringed." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (internal citations and quotations omitted). "When the parties raise an actual dispute regarding the proper scope of the[] claims, the court, not the jury, must resolve that dispute." *Id.* (internal citation omitted). However, claim construction need only "resolve the" controversy (*id.* at 1361); it is not "an obligatory exercise in redundancy" where no dispute exists. *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

Claim terms are generally given the "ordinary and customary meaning" that they would have to a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) (internal citations and quotations omitted). The ordinary and customary meaning is not the meaning of the claim term in the abstract. *Id.* at 1321. Rather, it is the "meaning to the ordinary artisan after reading the entire patent." *Id.*; see also *Trs. of Columbia U. v. Symantec Corp.*, 811 F.3d 1359, 1364 (Fed. Cir. 2016) ("The only meaning that matters in claim construction is the meaning in the context of the patent.") (internal citations omitted).

To determine the ordinary meaning, the court examines the claims, specification, and prosecution history of the patent, which form the "intrinsic evidence" for claim construction. *Phillips*, 415 F.3d at 1317; *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). "[T]he context in which a term is used in the asserted claim can be highly instructive."

1 *Phillips*, 415 F.3d at 1314. Additionally, “[d]ifferences among claims can also be a useful guide
2 in understanding the meaning of particular claim terms.” *Id.* (internal citation omitted). However,
3 a person of ordinary skill in the art is “deemed to read the claim term not only in the context of the
4 particular claim in which the disputed term appears, but in the context of the entire patent,
5 including the specification.” *Id.* at 1313. The specification “is always highly relevant to the claim
6 construction analysis” and usually “dispositive.” *Id.* at 1315 (quoting *Vitronics*, 90 F.3d at 1582).
7 Nevertheless, it is improper to limit the claimed invention to the preferred embodiments or to
8 import limitations from the specification unless the patentee has demonstrated a clear intent to
9 limit claim scope. *Martek Biosci. Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1380-81 (Fed. Cir.
10 2009).

11 In addition to the claims and specification, the prosecution history may be used “to
12 provide[] evidence of how the PTO and the inventor understood the patent.” *Phillips*, 415 F.3d. at
13 1317 (internal citation omitted). “Any explanation, elaboration, or qualification presented by the
14 inventor during patent examination is relevant, for the role of claim construction is to ‘capture the
15 scope of the actual invention’ that is disclosed, described and patented.” *Fenner Inv., Ltd. v.*
16 *Cellco P’ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015) (internal citation omitted). Finally, a court
17 may consider extrinsic evidence—such as dictionaries, inventor testimony, and expert opinion—if
18 it is helpful. *Phillips*, 415 F.3d at 1319. However, extrinsic evidence “is unlikely to result in a
19 reliable interpretation of patent claim scope unless considered in the context of the intrinsic
20 evidence.” *Id.*

21 There are two exceptions to the ordinary meaning construction: “(1) when a patentee sets
22 out a definition and acts as his own lexicographer,” and “(2) when the patentee disavows the full
23 scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comp.*
24 *Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Vitronics*, 90 F.3d at 1580). To act
25 as a lexicographer, the patentee “must ‘clearly set forth a definition of the disputed claim term’
26 other than its plain and ordinary meaning.” *Id.* (quoting *CCS Fitness, Inc. v. Brunswick Corp.*,
27 288 F.3d 1359, 1366 (Fed. Cir. 2002)). To disavow claim scope, the specification or prosecution
28 history must “make[] clear that the invention does not include a particular feature” even though

the language of the claims “might be considered broad enough to encompass the feature in question.” *Id.* at 1366 (quoting *SciMed Life Sys., Inc. v. Adv. Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001)).

III. CLAIM CONSTRUCTION

A. Agreed-to Constructions

The parties propose five terms for construction. (*See* Dkt. No. 129-1, Joint Claim Construction and Pre-Hearing Statement, Ex. A.) The parties agreed to the following constructions (*see* Dkt. No. 129, Joint Claim Construction and Pre-Hearing Statement):

Claim	Term	Agreed Construction
'870 Patent, Claim 11	“estimating the locations of rendered features and functions displayed by the client device includes estimating locations of features and functions that are hidden from display by the client device”	Plain and ordinary meaning
'870 Patent, Claim 7	“Hard information”	“transactional text and/or data displayed by a client device”
'682 Patent, Claim 7	“estimating the at least one location of the at least one rendered feature or function displayed by the client device includes estimating at least one location of at least one rendered feature or function that is hidden from display by the client device”	Plain and ordinary meaning

B. Considering Indefiniteness at Claim Construction

For purposes of this particular *Markman* order, the Court first considers the appropriateness of deciding questions of indefiniteness at this stage. *Markman*, 517 U.S. 370, 384 (1996). Defendant argues that, under *TVnGO Ltd. (BVI) v. LG Elecs. Inc.*, 861 F. App'x 453, 457 (Fed. Cir. 2021), consideration of indefiniteness at this stage is appropriate. Sunstone rightly points out that *TVnGO* is non-precedential. Sunstone also attempts to distinguish the facts of *TVnGO*. However, courts in this District have opted to consider challenges to definiteness at claim construction. *See Brandywine Commc'ns Techs., LLC v. AT & T Corp.*, No. C 12-2494 CW,

2014 WL 1569544, at *13 (N.D. Cal. Apr. 18, 2014) (“the Federal Circuit has made clear that indefiniteness is a legal question that district courts may decide prior to trial”) (internal quotation omitted); *Prolifiq Software Inc. v. Veeva Sys. Inc.*, No. C 13-03644 SI, 2014 WL 3870016, at *8 (N.D. Cal. Aug. 6, 2014) (finding the term “differently versioned” indefinite and the claims containing it invalid); *See Zoho Corp. v. Sentius Int’l, LLC*, No. 4:19-CV-0001-YGR, 2020 WL 3128910, at *16 (N.D. Cal. June 12, 2020) (finding “compiling the source material image” indefinite at *Markman* hearing) (internal quotations omitted); *VTT Tech. Rsch. Ctr. of Finland Ltd. v. SiTime Corp.*, No. 4:19-CV-1174-YGR, 2020 WL 4193374, at *13 (N.D. Cal. July 21, 2020), *aff’d*, 849 F. App’x 928 (Fed. Cir. 2021) (finding the term “drive or sense means” indefinite).

Sunstone’s authorities to the contrary are unpersuasive. First, *Lifescan Scotland* is distinguishable because construction of the disputed claim terms here can be resolved with only the specification. *See Lifescan Scotland, Ltd. v. Shasta Techs., LLC*, No. 11-CV-04494-WHO, 2014 WL 11206411, at *3 (N.D. Cal. Nov. 10, 2014) (specifically reasoning that where expert testimony is *relevant*, delaying the indefiniteness determination is appropriate). Moreover, the *Lifescan* court distinguished its situation from the one in *Prolifiq Software*, where the court found that an indefiniteness determination was not “premature” without expert testimony because the term itself could be understood only subjectively. *Id.* *Intergraph Hardware* involved a term to which section 112, paragraph 6 applied, where the parties disagreed regarding the function recited in the claim. *Intergraph Hardware Techs. Co. v. Toshiba Corp.*, 508 F. Supp. 2d 752, 773 n.3 (N.D. Cal. 2007) (declining to consider indefiniteness at the *Markman* stage). That is not the case here, and the court there did not provide reasoning for its refusal to consider indefiniteness at that stage. While courts do frequently defer invalidity determinations until after claim construction, the Federal Circuit has not precluded such determinations. *See DuraSystems Barriers Inc. v. Van-Packer Co.*, No. 1:19-cv-01388-SLD-JEH, 2021 WL 4037826, at *5 (C.D. Ill. Sept. 3, 2021).

Sunstone’s argument that a finding of indefiniteness should be postponed until after the close of discovery would be obviated by the Court making only preliminary findings at this stage. The other arguments Sunstone advances in favor of postponing a finding of indefiniteness are equally unpersuasive. First, as Sunstone acknowledges, the PTAB cannot invalidate claims. (*See*

Dkt. No. 124, (“Reply”) at 3.) Second, the *IBM* court’s constructions are not binding on this Court. *See Aircraft Tech. Publishers v. Avantext, Inc.*, No. C 07-4154 SBA, 2009 WL 3817944, at *3 (N.D. Cal. Nov. 10, 2009) (“While uniformity of treatment of a given patent is important, one district court is not bound to automatically accept the claim construction of another district court. Rather, this Court has an independent obligation to construe the claims in dispute, and to render its own independent claim construction.”) (internal citations and quotations omitted).

C. Disputed Terms in the ’870 Patent and ’682 Patent

For the readers’ convenience, the text of the independent claims of the ’870 containing the term “transactional information” are contained in Attachment A hereto.

1. “transactional information”

Sunstone Construction	F5 Construction	Court’s Construction
Plain and ordinary meaning	Indefinite	Indefinite

With respect to the term “transactional information,” the parties dispute whether “hard information” is a subset of “transactional information.” Sunstone, and its expert, argue that it is. (*See* Ex. C to Pl.’s Initial Br. (“Medvidovic Decl.”), Dkt. 120-4 ¶ 49 (“Thus, a POSA would understand from the specification that ‘hard information’ is a subset of ‘transactional information[.]’”).) F5 replies that such an understanding would render the specification internally inconsistent. (*See* Dkt. No. 123 (“Def. Resp. Br.”) at 5 (arguing that the specification suggests “transactional information” is synonymous with “hard information” and the prosecution history provides no clarity).)

This dispute is resolved by the intrinsic evidence. All agree that the term “information” is well-understood. However, the effect of Sunstone’s position creates confusion as to the meaning of “transactional information” relative to any other kind of “information.” Nothing set forth by Sunstone’s expert, or in its other extrinsic evidence, can overcome a position that is inconsistent with the specification. The specification itself does not provide clarity relative to Sunstone’s position, that is, it does not explain how “transactional information” and “hard information” overlap or are related.

Sunstone points to various parts of the specification that discuss information sent with an “intent” or for a “purpose.” (*See* Dkt. No. 120 (“Pl. Initial Br.”), at 7.) Again, Sunstone does not explain how or why the Court would incorporate the “business purpose” of information or the “authentic intent” of the entity sending the information into the construction of this term. To that end, Sunstone’s proposed alternative construction, “data to be transmitted between a server and a client to achieve the purpose of the connection[,]” is equally unhelpful. (*Id.*) It is not obvious why any information that is not essential to “achieving the purpose” of the connection would be sent. Additionally, the effect of this position would result in an open-ended construction lacking any discernible structure. Moreover, Sunstone’s attempt to distinguish “purposive” information from any other type of information is simply too ambiguous to inform a POSA of the scope of this term, *i.e.*, what the bounds of this kind of information are.

However, F5’s contention that the shared specification of the asserted patents does not use the term “transactional information” is not entirely correct. The term appears in the Abstract, as well as in the claims themselves. Tellingly, Sunstone’s own expert opines that “‘hard information’ is a subset of ‘transactional information,’” and that “[a] POSA would understand that not all data sent between a client and server which is necessary to achieve the purpose of a transaction would actually be displayed to a user.” (Medvidovic Decl. ¶ 49.) Regardless of whether “transactional information” is the same as “hard information” or the two overlap in some way, the specification does not clarify the bounds of the term.

Sunstone’s argument that “transactional information” is “information sent for some purpose” is completely devoid of meaning. Processors do not have intent, and Sunstone points to no cases showing application of a Court’s discernment regarding the *user’s* intent to the thing executing or carrying out the claim itself.

While the parties have agreed on a construction of “hard information,” setting forth that this known thing is a subset of a larger category does not define the contours of that larger category. *See Cap. Sec. Sys., Inc. v. NCR Corp.*, 725 F. App’x 952, 958 (Fed. Cir. 2018) (finding the term “transactional operator” indefinite where it was unknown from the passage in the specification set forth for support by the patentee whether the term “include[d] the

microcomputer[], the keyboard[], and the display[], or a subset thereof”). Moreover, the understanding that some information necessary to achieve a particular purpose need not be displayed to a user of the device does no work to define what that non-displayed information is either. Sunstone’s representations at oral argument do not eliminate the Court’s concerns. F5 argues that the specification makes apparent that “rendered information [] is displayed [] while the un-rendered information [] is not displayed[.]” (’870 Patent at 22:9-11.) Thus, any attempt to distinguish “transactional information” from “hard information” by the fact that the former need not be displayed is refuted by the fact that the claims recite rendered transactional information. (See, e.g., ’870 Patent at cl. 1 (“determining a prediction of a response message from the client device based on i) the selected transactional information,” and “ii) how the client device is configured to render the transactional information”).) While it is at least conceivable that “transactional information” need not be displayed, if “hard information” is only “transactional information” that is displayed, and all asserted claims recite “transactional information” that is rendered and displayed, it is not discernible how this differs from “hard information.” F5 argues that, based on the specification, a POSA would in fact understand “hard information” and “transactional information” to be the same, premised on the idea that “text, data, pictures, and/or images” pretty well capture the term “information.” (F5 Resp. Br. at 6 (quoting ’870 Patent at 6:21-24).) F5 makes a compelling case that, at the very least, a POSA would not understand the difference between “hard information” and “transactional information.”

Both sides discuss claim differentiation, but this doctrine does not save Sunstone. Neither party makes very compelling claim differentiation arguments. F5 makes claim differentiation arguments only in i) arguing that different terms must “have different meanings[]” (*see id.* at 5) and ii) arguing *against* Sunstone’s argument that claim differentiation does not itself render the claims invalid where the specification provides support for the disputed terms (*see* Pl. Initial Br. at 9; Def. Resp. Br. at 8). While F5’s argument is valid, it rests on the premise that the specification’s suggestion that “hard information” is synonymous with “transactional information” establishes the truth of that suggestion.

The Court agrees with F5 that the discussion of “hard information” and “transactional text,

data, pictures, and/or images” is ambiguous, but the Court cannot conclude more from this ambiguity. Sunstone’s argument that, even if claim differentiation rendered the scope of different claims identical, the specification controls, does not help its case either because the specification does not unambiguously define the disputed term here.

In terms of the file history, Sunstone’s argument is more persuasive. F5 is incorrect that the file history adds to the confusion surrounding the term “transactional information,” but it does not delineate the bounds of the term either. The file history provides:

The server determines a prediction that the user will only see the ‘banana’ data field next to text requesting a password and will not see the hidden ‘password’ data field (one example of predicted response information based on how the client device renders the transaction information). The server also predicts that the user will not enter data into the hidden ‘password’ data field but will enter data into the visible ‘banana’ data field (an example of predicted response information associated with the transactional information that is expected to be provided by a user of the client device).

(Dkt. No. 120013, Ex. L to Pl. Initial Br. at -0000464-0000465.) F5 and its expert assert that a POSA would conclude “that a data field is transactional information[.]” Resp. Br. at 10 (citing Dkt. No. 120-5, Ex. D to Pl. Initial Br. (“Jakobsson Decl.”) ¶ 47.) However, the file history does not support that argument. Rather, as Sunstone asserts, the file history supports the idea that it is reasonable to infer that a “data field” can relate to “transactional information” or “presentation information.” Ultimately, and again, the file history provides no clarity regarding the outer bounds of these terms. Nothing about a “data field” being able to relate to either of these two terms would solidify a POSA’s understanding of what “transactional information” is.

Similarly, Sunstone’s authorities in favor of a given structure satisfying more than one claim limitation are inapposite where the scope of the claim limitation itself is unknown. Moreover, while the reasoning in *Powell v. Home Depot U.S.A., Inc.*, depended on claims being construed in such a way that they required the same structure, that disposition was about infringement. 663 F.3d 1221, 1232 (Fed. Cir. 2011). As such, it is not relevant that a “data field” can have aspects or elements related to various kinds of information.

2. “presentation information”

Sunstone Construction	F5 Construction	Court's Construction
Plain and ordinary meaning	Indefinite	Indefinite

The parties dispute the construction of “presentation information.” Sunstone argues that presentation information is a set of information that includes the subset of “soft information.” (Pl. Initial Br. at 11-12 (quoting ’870 Patent at 6:43-45; ’682 Patent at 6:57-58) (supplied emphasis omitted).) The parties agreed that “soft information” is “presentation information describing how hard information is to be displayed by a client device.” (*Id.* at 12; Def. Resp. Br. at 16.) Furthermore, the parties agreed, the same week as the hearing, that “hard information” is “transactional text and/or data displayed by a client device.” (Joint Claim Construction and Pre-Hearing Statement at 2.)

The parties make largely similar arguments regarding “presentation information” as they do for “transactional information.”²

F5 argues that the specification implies that “soft information” is a subset of “presentation information” without defining “presentation information” itself. (Def. Resp. Br. at 12.) If true, this would render the bounds of the term ill-defined. That said, if the Court were to accept Sunstone’s alternative construction, the term would be no more readily understood. Sunstone sets forth the alternative construction “information specifying how transactional information is to be displayed” (Pl. Initial Br. at 11), but the Court has already found that “transactional information” is indefinite. Defining the term “presentation information” by another indefinite term is not helpful here. F5 is, furthermore, correct that Sunstone’s alternative construction would make some of the claims circular.

F5’s authorities are generally on point. In *Harris Corp.*, the court rejected the patentee’s proposed construction because it would have rendered the asserted claim circular. 114 F.3d 1149, 1152 (Fed. Cir. 1997). The claims in *Synchronoss Techs., Inc. v. Dropbox, Inc.*, “require[d] an impossibility—that the digital media file contain a directory of digital media files.” 987 F.3d 1358, 1367 (Fed. Cir. 2021). In *Trs. Of Columbia Univ. v. Symantec Corp.*, the court found claims

² For thoroughness, all independent claims containing the term “presentation information” are set forth in Attachment B of the Appendix.

1 indefinite where they required extracting particular instructions from something that did not
2 contain those instructions—an impossibility which the court likened to “extracting orange juice
3 from apples[.]” 811 F.3d 1359, 1367 (Fed. Cir. 2016) (internal quotations omitted).

4 F5 makes argument concerning the alleged inconsistency between what “presentation
5 information” is and the reality that some claims containing this term also specify that
6 “presentation information includes at least one of protocol information, formatting information,
7 positional information, rendering information, style information, transmission encoding
8 information” (Def. Resp. Br. at 14 (quoting ’870 Patent at cl. 1; ’682 Patent at cls. 1, 6, 8, 10,
9 12, 16) (supplied emphasis omitted).) The problem, according to F5, is that these types of
10 information do not do what Sunstone argues “presentation information” does. As we know,
11 however, “presentation information” is a broad category including subsets of information, so there
12 is nothing internally inconsistent about “presentation information” including types of information
13 that do not do what “presentation information” as a whole does. If a Swiss Army Knife both cuts
14 and files, the file only files, but the Knife as a whole still cuts and files.

15 F5 makes the same file history arguments regarding “presentation information,” and they
16 are equally unconvincing here. (Def. Resp. Br. at 15-16.) Nevertheless, the file history also
17 would not aid a POSA in discerning the bounds of the term. In *Masco Corp. v. U.S.*, the court
18 found that the patentee’s amendment inserting the word “drive” distinguished pushing from
19 pulling such that the patentee’s attempt to include pulling actions in “drive” was inconsistent. 303
20 F.3d 1316, 1325 (Fed. Cir. 2002). In *Cap. Sec. Sys. v. NCR Corp.*, 725 F. App’x 952, 959 (Fed.
21 Cir. 2018), the court affirmed the district court’s finding that the term “transactional operator” was
22 indefinite where the patentee set forth an interpretation that was arbitrary and generally
23 unsupported by the specification, from which it was not transparent what the term encompassed.
24 F5 points to nothing showing the patentee disavowed scope, such as in *Masco*, by giving an
25 example where a server could label “data field,” and this example does not demonstrate that labels
26 are necessarily presentation information. Nevertheless, as in *Cap. Sec.*, “presentation
27 information,” like “transactional information,” is generally unsupported by the specification, and it
28 is not ascertainable what the term includes.

Sunstone’s claim differentiation arguments on reply illustrate why the argument supports neither side. (*See* Reply at 6-9.) The doctrine of claim differentiation is guided by mere “common sense[.]” *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir. 2005) (internal citations and quotations omitted). Different terms in different claims indicate different things. This presumption is not ironclad, but F5’s argument against the presumption rests on a premise that is not established. Nevertheless, this is far from F5’s only indefiniteness argument.³

Sunstone’s reliance on *Process Control Corp. v. HydReclaim Corp.* on reply is also inapposite because there the court was stating that the claim defined the term, not that terms are automatically defined because they appear in the claims. 190 F.3d 1350 (Fed. Cir. 1999). The proposition for which Sunstone cites *Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1400 n.1 (Fed. Cir. 2004), that a court *may* accept circular or redundant constructions, is dicta. 549 F.3d 1394, 1400 n.1 (Fed. Cir. 2008).

If the Court declines to adopt Sunstone’s proffered plain and ordinary meaning, then “presentation information” is also indefinite based on Sunstone’s proposed alternative construction of “information specifying how transactional information is to be displayed.”

Sunstone points to nothing in the specification that would clarify to a POSA what “presentation information” is. The file history does not enlighten. As such, the Court finds that the intrinsic evidence does not support Sunstone’s proffered constructions, and the term “presentation information” is indefinite.

3. “estimating a label of the presentation information”

Sunstone Construction	F5 Construction	Court’s Construction
Plain and ordinary meaning	Indefinite	Indefinite

Estimating a label of an indefinite term is itself indefinite. Because the Court has analyzed the term “presentation information” and found it to be indefinite, “estimating a label of the

³ The Court acknowledges that, “the subjective intent of the inventor when [s]he used a particular term is of little or no probative weight in determining the scope of a claim.” *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346 (Fed. Cir. 2008) (quoting *Markman*, 52 F.3d at 985).

presentation information” is also indefinite.

D. Disputed Terms in the '870 Patent

1. “soft information”

Sunstone Construction	F5 Construction	Court's Construction
“information describing how hard information is to be displayed by a client device”	“information describing how hard information is to be displayed by a client device”	Indefinite

The parties agree that “soft information” rises or falls with “presentation information.” Because “presentation information” is indefinite, the Court finds that “soft information” is also indefinite.

2. “estimating a utilization of a codeword set”

Sunstone Construction	F5 Construction	Court's Construction
Plain and ordinary meaning	Indefinite	Indefinite

The patentee introduces numerous verbs in connection with the explanation of this term. Notwithstanding that problem, there is nothing implying that a “codeword set” is anything other than a type of “hard information.” If “hard information” is a subset of “transactional information,” which is itself indefinite, then this term is also indefinite.

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IV. CONCLUSION


Based on the foregoing, the Court provides the following claim constructions:

Term	Construction
“transactional information”	Indefinite
“presentation information”	Indefinite
“estimating a label of the presentation information”	Indefinite
“soft information”	Indefinite
“estimating a utilization of a codeword set”	Indefinite

This terminates Docket Number 120.

IT IS SO ORDERED.

Dated: 3/30/2023


YVONNE GONZALEZ ROGERS
UNITED STATES DISTRICT JUDGE

APPENDIX
ATTACHMENT A

Independent claim 1 of the '870 recites:

1. A method comprising:
 selecting *transactional information* to transmit from a server to a communicatively coupled client device based on a request from the client device;
 selecting presentation information corresponding to the *transactional information* to transmit from the server to the client device, the presentation information specifying how the *transactional information* is to be displayed;
 transmitting at least one message including the presentation and *transactional information* from the server to the client device;
 determining a prediction of a response message from the client device based on i) the selected *transactional information*, ii) how the client device is configured to render the *transactional information* specified by the presentation information, and iii) predicted response information associated with the *transactional information* that is expected to be provided by a user of the client device;
 receiving the response message from the client device; and responsive to information in the response message not matching the prediction, providing an indication there is a malicious application affecting communications between the server and the client device, wherein the prediction is further determined based at least in part by at least one of:
 (a) estimating locations of rendered features and functions as displayed by the client device,
 (b) estimating locations of rendered page geometry of the features and functions,
 (c) estimating relative locations between text, input boxes, buttons, and advertisements as displayed by the client device,
 (d) estimating a label of the presentation information,
 (e) estimating a utilization of a codeword set based on the presentation information and *transactional information*, and
 (f) estimating a utilization of a codeword set based on actions taken by at least one of the user and the client device.

(Italics supplied.)

1 Independent claim 39 of the '870 recites:

2 39. A method comprising:
 3 receiving, in a security server from a transaction server,
transactional information to transmit to a client device
 4 based on a transaction with the client device;
 5 receiving, in the security server from the transaction server,
 presentation information corresponding to the *transac-*
 6 *tional information*;
 7 modifying, via the security server, at least some of the
 presentation information;
 8 transmitting, via the security server, the modified presen-
 tation information and *transactional information* to the
 9 client device;
 10 determining, via the security server, an acceptable
 response based on i) the modified presentation informa-
 11 tion and the *transactional information*, ii) how the client
 device is configured to render the *transactional informa-*
 12 *tion*, and iii) predicted response information associated
 with the *transactional information* that is expected to be
 13 provided by a user of the client device; and
 14 responsive to information in a response message from the
 client device not matching the acceptable response, pro-
 15 viding an indication there is a malicious application
 affecting communications between the transaction
 16 server and the client device,
 17 wherein the acceptable response is further determined
 based at least in part by at least one of:
 18 (a) estimating locations of rendered features and func-
 tions as displayed by the client device,
 19 (b) estimating locations of rendered page geometry of
 the features and functions,
 20 (c) estimating relative locations between text, input
 boxes, buttons, and advertisements as displayed by
 21 the client device,
 22 (d) estimating a label of the presentation information,
 23 (e) estimating a utilization of a codeword set based on
 the presentation information and *transactional infor-*
 24 *mation*, and
 25 (f) estimating a utilization of a codeword set based on
 26 actions taken by at least one of the user and the client
 27 device.
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(Italics supplied.)

ATTACHMENT B

Independent claim 1 of the '682 recites:

1. A method comprising:
 selecting, via a processor, *transactional information* to transmit from a server to a communicatively coupled client device based on a request from the client device;
 selecting, via the processor, presentation information corresponding to the *transactional information* to transmit from the server to the client device, the presentation information specifying how the *transactional information* is to be displayed;
 transmitting, via the processor, at least one message including the presentation and *transactional information* from the server to the client device;
 determining, via the processor, a prediction of a response message from the client device based on i) the selected *transactional information*, ii) how the client device is configured to render the *transactional information* specified by the presentation information, and iii) expected response information associated with the *transactional information* that is expected to be provided by a user of the client device;
 receiving, in the processor, the response message from the client device; and
 responsive to information in the response message not matching the prediction, providing, via the processor, an indication there is a malicious application affecting communications between the server and the client device,
 wherein the prediction is further determined by the processor based at least in part by estimating at least one location of at least one rendered feature or function as displayed by the client device,
 wherein the presentation information includes at least one of protocol information, formatting information, positional information, rendering information, style information, transmission encoding information, information describing how different layers of a style sheet are to be rendered by the client device, or information changing a definition of a function in a code library at the client device, and
 wherein the *transactional information* includes at least one of text, data, pictorial information, image information, information requested by the server to perform a service for the client device, authentication information, refinement information on a type of service requested by the client device, financial information, or data management information.

(Italics supplied.)

Independent claim 6 of the '682 recites:

6. A method comprising:
 selecting, via a processor, *transactional information* to transmit from a server to a communicatively coupled client device based on a request from the client device;
 selecting, via the processor, presentation information corresponding to the *transactional information* to transmit from the server to the client device, the presentation information specifying how the *transactional information* is to be displayed;
 transmitting, via the processor, at least one message including the presentation and *transactional information* from the server to the client device;
 determining, via the processor, a prediction of a response message from the client device based on i) the selected *transactional information*, ii) how the client device is configured to render the *transactional information* specified by the presentation information, and iii) expected response information associated with the *transactional information* that is expected to be provided by a user of the client device;
 receiving, in the processor, the response message from the client device; and
 responsive to information in the response message not matching the prediction, providing, via the processor, an indication there is a malicious application affecting communications between the server and the client device,
 wherein the prediction is further determined by the processor based at least in part by estimating at least one location of a rendered page geometry of at least one feature or function,
 wherein the presentation information includes at least one of protocol information, formatting information, positional information, rendering information, style information, transmission encoding information, information describing how different layers of a style sheet are to be rendered by the client device, or information changing a definition of a function in a code library at the client device, and
 wherein the *transactional information* includes at least one of text, data, pictorial information, image information, information requested by the server to perform a service for the client device, authentication information, refinement information on a type of service requested by the client device, financial information, or data management information.

(Italics supplied.)

Independent claim 8 of the '682 recites:

8. A method comprising:
 selecting, via a processor, *transactional information* to transmit from a server to a communicatively coupled client device based on a request from the client device;
 selecting, via the processor, presentation information corresponding to the *transactional information* to transmit from the server to the client device, the presentation information specifying how the *transactional information* is to be displayed;
 transmitting, via the processor, at least one message including the presentation and *transactional information* from the server to the client device;
 determining, via the processor, a prediction of a response message from the client device based on i) the selected *transactional information*, ii) how the client device is configured to render the *transactional information* specified by the presentation information, and iii) expected response information associated with the *transactional information* that is expected to be provided by a user of the client device;
 receiving, in the processor, the response message from the client device; and
 responsive to information in the response message not matching the prediction, providing, via the processor, an indication there is a malicious application affecting communications between the server and the client device,
 wherein the prediction is further determined by the processor based at least in part by estimating relative locations between text, input boxes, buttons, and advertisements as displayed by the client device;
 wherein the presentation information includes at least one of protocol information, formatting information, positional information, rendering information, style information, transmission encoding information, information describing how different layers of a style sheet are to be rendered by the client device, or information changing a definition of a function in a code library at the client device, and
 wherein the *transactional information* includes at least one of text, data, pictorial information, image information, information requested by the server to perform a service for the client device, authentication information, refinement information on a type of service requested by the client device, financial information, or data management information.

(Italics supplied.)

1 Independent claim 10 of the '682 recites:

2 10. A method comprising:

3 selecting, via a processor, *transactional information* to
4 transmit from a server to a communicatively coupled
5 client device based on a request from the client device;
6 selecting, via the processor, presentation information cor-
7 responding to the *transactional information* to transmit
8 from the server to the client device, the presentation
9 information specifying how the *transactional informa-*
10 *tion* is to be displayed;

11 transmitting, via the processor, at least one message
12 including the presentation and *transactional informa-*
13 *tion* from the server to the client device;

14 determining, via the processor, a prediction of a response
15 message from the client device based on i) the selected
16 *transactional information*, ii) how the client device is
17 configured to render the *transactional information*
18 specified by the presentation information, and iii)
19 expected response information associated with the
20 *transactional information* that is expected to be pro-
21 vided by a user of the client device;

22 receiving, in the processor, the response message from the
23 client device; and

24 responsive to information in the response message not
25 matching the prediction, providing, via the processor, an
26 indication there is a malicious application affecting
27 communications between the server and the client
28 device,

wherein the prediction is further determined by the
processor based at least in part by estimating a label
of the presentation information,

wherein the presentation information includes at least
one of protocol information, formatting information,
positional information, rendering information, style
information, transmission encoding information,
information describing how different layers of a style
sheet are to be rendered by the client device, or
information changing a definition of a function in a
code library at the client device, and

wherein the *transactional information* includes at
least one of text, data, pictorial information, image
infor-

mation, information requested by the server to per-
form a service for the client device, authentication
information, refinement information on a type of
service requested by the client device, financial
information, or data management information.

25 (Italics supplied.)

1 Independent claim 21 of the '682 recites:

2 21. An apparatus comprising:
 3 a security processor; and
 4 a memory including instructions, which when executed,
 5 cause the security processor configured to:
 6 select presentation information corresponding to *transac-*
 7 *tional information* received from a server;
 8 select a variation of the presentation information;
 9 combine the selected variation of the presentation and
 10 *transactional information* into the at least one message;
 11 transmit the at least one message to a client device;
 12 determine a prediction of a response message based on i)
 13 the selected variation of the presentation information,
 14 ii) how the client device is configured to render the
 15 *transactional information*, and iii) expected response
 16 information associated with the *transactional informa-*
 17 *tion* that is expected to be provided by a user of the
 18 client device; and
 19 responsive to information in a response message from the
 20 client device not matching the acceptable response,
 21 provide an indication there is a malicious application
 22 affecting communications between the server and the
 23 client device,
 24 wherein the prediction is further determined based at
 25 least in part by estimating at least one location of at
 26 least one rendered feature or function as displayed by
 27 the client device,
 28 wherein the presentation information includes at least
 one of protocol information, formatting information,
 positional information, rendering information, style
 information, transmission encoding information,
 information describing how different layers of a style
 sheet are to be rendered by the client device, or
 information changing a definition of a function in a
 code library at the client device, and
 wherein the *transactional information* includes at least
 one of text, data, pictorial information, image infor-
 mation, information requested by the server to per-
 form a service for the client device, authentication
 information, refinement information on a type of
 service requested by the client device, financial
 information, or data management information.

22 (Italics supplied.)

Independent claim 25 of the '682 recites:

25. An apparatus comprising:
a security processor; and
a memory including instructions, which when executed,
cause the security processor to:

select presentation information corresponding to *transactional information* received from a server;
select a variation of the presentation information;
combine the selected variation of the presentation and *transactional information* into the at least one message;
transmit the at least one message to a client device;
determine a prediction of a response message based on i)
the selected variation of the presentation information,
ii) how the client device is configured to render the *transactional information*, and iii) expected response
information associated with the *transactional information* that is expected to be provided by a user of the
client device; and
responsive to information in a response message from the
client device not matching the acceptable response,
provide an indication there is a malicious application
affecting communications between the server and the
client device,
wherein the prediction is further determined based at
least in part by estimating at least one location of a
rendered page geometry of at least one feature or
function,
wherein the presentation information includes at least
one of protocol information, formatting information,
positional information, rendering information, style
information, transmission encoding information,
information describing how different layers of a style
sheet are to be rendered by the client device, or
information changing a definition of a function in a
code library at the client device, and
wherein the *transactional information* includes at least
one of text, data, pictorial information, image infor-
mation, information requested by the server to per-
form a service for the client device, authentication
information, refinement information on a type of
service requested by the client device, financial
information, or data management information.

(Italics supplied.)

1 Independent claim 28 of the '682 recites:

2 28. An apparatus comprising:
 3 a security processor; and
 4 a memory including instructions, which when executed,
 5 cause the security processor to:
 6 select presentation information corresponding to *transac-*
 7 *tional information* received from a server;
 8 select a variation of the presentation information;
 9 combine the selected variation of the presentation and
 10 *transactional information* into the at least one message;
 11 transmit the at least one message to a client device;
 12 determine a prediction of a response message based on i)
 13 the selected variation of the presentation information,
 14 ii) how the client device is configured to render the
 15 *transactional information*, and iii) expected response
 16 information associated with the *transactional informa-*
 17 *tion* that is expected to be provided by a user of the
 18 client device; and
 19 responsive to information in a response message from the
 20 client device not matching the acceptable response,
 21 provide an indication there is a malicious application
 22 affecting communications between the server and the
 23 client device,
 24 wherein the prediction is further determined based at
 25 least in part by estimating relative locations between
 26 at least one of text, input boxes, buttons, or adver-
 27 tisements as displayed by the client device,
 28 wherein the presentation information includes at least 35
 one of protocol information, formatting information,
 positional information, rendering information, style
 information, transmission encoding information,
 information describing how different layers of a style
 sheet are to be rendered by the client device, or 40
 information changing a definition of a function in a
 code library at the client device, and
 wherein the *transactional information* includes at least
 one of text, data, pictorial information, image infor-
 mation, information requested by the server to per- 45
 form a service for the client device, authentication
 information, refinement information on a type of
 service requested by the client device, financial
 information, or data management information.

22 (Italics supplied.)

1 Independent claim 30 of the '682 recites:

2 30. An apparatus comprising:
 3 a security processor; and
 4 a memory including instructions, which when executed,
 5 cause the security processor to:
 6 select presentation information corresponding to *transac-*
 7 *tional information* received from a server;
 8 select a variation of the presentation information;
 9 combine the selected variation of the presentation and
 10 *transactional information* into the at least one
 11 message; transmit the at least one message to a client
 12 device; determine a prediction of a response message
 13 based on i)
 14 the selected variation of the presentation information,
 15 ii) how the client device is configured to render the
 16 *transactional information*, and iii) expected response
 17 information associated with the *transactional informa-*
 18 *tion* that is expected to be provided by a user of the
 19 client device; and
 20 responsive to information in a response message from the
 21 client device not matching the acceptable response,
 22 provide an indication there is a malicious application
 23 affecting communications between the server and the
 24 client device,
 25 wherein the prediction is further determined based at
 26 least in part by estimating a label of the presentation
 27 information,
 28 wherein the presentation information includes at least
 one of protocol information, formatting information,
 positional information, rendering information, style
 information, transmission encoding information,
 information describing how different layers of a style
 sheet are to be rendered by the client device, or
 information changing a definition of a function in a
 code library at the client device, and
 wherein the *transactional information* includes at least
 one of text, data, pictorial information, image infor-
 mation, information requested by the server to per-
 form a service for the client device, authentication
 information, refinement information on a type of
 service requested by the client device, financial
 information, or data management information.

(Italics supplied.)